3/8/2017 # Richard Bowman

2016 RESULTS REPORT -

# CONSERVATION

The Nature Conservancy





ichigan's forests not only sustain local and regional economies, they also provide habitat, clean water and recreational opportunities for citizens. Therefore, the Conservancy is promoting sustainable forestry as a means to provide for people and nature both now and in the future. Specifically, we are protecting key forested areas, demonstrating sustainable forestry practices on Conservancy-owned lands, developing tools and methodologies to inform forest management and sharing these experiences with other land managers throughout the state.

# "MODEL" FOREST DESIGNATION

This year, the Conservancy's Two Hearted River Forest Reserve was designated a "Model Forest" by the Forest Stewards Guild. The Forest Stewards Guild is a national professional organization of forest stewards, natural resource professionals and affiliates. The Model Forest network is comprised of more than 25 forests totaling over 225,000 acres that include some of the finest forests in America. Model Forests serve as examples of sustainable forest management for the broader community of forest managers. To be designated a Model Forest, forests must:

- Align with the Forest Stewards Guild's guiding principles
- Utilize a comprehensive, written forest management plan
- Be under stable ownership with transparent decision making processes
- Be managed by a Forest Stewards Guild member
- Show high demonstration value



# **RESTORING KEY FORESTED AREAS**

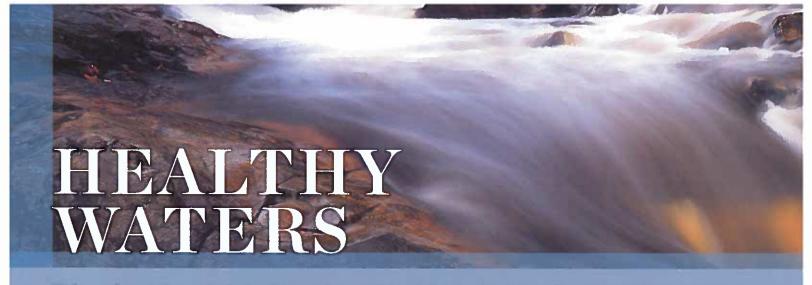
When red pine goes to market, it often becomes paper or lumber. But, thanks to a program created in the 2014 Farm Bill called Stewardship Agreements, the Conservancy and the Ottawa National Forest have entered into a new partnership for conservation. With the Conservancy's involvement, the story does not end with the paper or lumber product; we will use the revenue from the harvest to complete much-needed restoration in the National Forest. This creates a virtuous cycle that steers proceeds back into a healthy, resilient forest that will provide benefits to people and nature for decades to come.

# INFORMING SOUND MANAGEMENT DECISIONS

The Conservancy prides itself on bringing on-the-ground experiences to the table to inform management decisions. Over the past year, we have assisted with wildfire planning and riparian planning with land managers across the state.

For example, Conservancy staff facilitated community conversations in Chippewa County and, based on community input, authored a Community Wildfire Protection Plan (CWPP). This plan will be used to identify and implement forest restoration projects that improve or maintain forest health while at the same time helping to protect communities from future wildfire.

Also, in the Hiawatha National Forest, Conservancy staff completed an assessment and inventory of riparian areas throughout 1,400 square miles of forest. This information will help forest managers identify where to focus restoration efforts that will result in healthy riparian areas across this landscape.



Michigan is home to thousands of miles of rivers and streams, lakes of all sizes and vast stores of precious groundwater. We use our water resources to support agriculture, development, shipping and industry. But usage has taken a toll on these freshwater resources, degrading water quality to the detriment of fish, wildlife and people. Additionally, these changes in water quality and local habitats make our waters more vulnerable to the threat of aquatic invasive species. To restore and protect the health of Michigan's lakes and rivers, the Conservancy is working to control aquatic invasive species, partnering with diverse stakeholders to improve water quality, reconnecting rivers and streams for the health of migratory fish and restoring habitat to help native fisheries rebound.

#### **RECONNECTING RIVERS AND STREAMS**

On average, only 25 percent of the Great Lakes region's tributary streams are actually connected to the lakes. The rest are interrupted by dams, problematic road-stream crossings (such as perched culverts) or other barriers that make it impossible for migratory fish to pass through and access critical spawning and feeding habitats.

New maps compile data to help the Conservancy and

New maps compile data to help the Conservancy and partners prioritize action for restoring habitat for fish in the Great Lakes.

\*\*The Nature Conservancy\*\*

However, these barriers often serve as an effective obstacle to invasive species movement. Given the number of barriers and the cost to remove or bypass them, and the need to manage invasive species, we need to understand where restoring connectivity would

have the greatest value for migratory fish. To gain this insight, the Conservancy gathered fish data from 30 sources around the Great Lakes. The result is a series of groundbreaking maps that identify priority habitat for more than 40 species.

The data from these maps, and from other sources, will be used to power FishWerks (greatlakesconnectivity.org), an optimization tool for scientists that determines which Great Lakes tributaries would have the most positive biological benefit if reconnected. FishWerks is a collaboration between the Conservancy, the University of Wisconsin and the Wisconsin Department of Natural Resources.

# **GREAT LAKES AQUATIC CONNECTIVITY COLLABORATIVE**

Under leadership from the Landscape Conservation Cooperative Network, the Great Lakes Fisheries Commission and the U.S. Fish and Wildlife Service, The Nature Conservancy has helped develop the Great Lakes Aquatic Habitat Connectivity Collaborative, a consortium of conservation groups, state and federal agencies and local stakeholders working to prioritize the reconnection of streams and rivers at road-stream crossings and dams across the Great Lakes. Their collaborative efforts will improve habitat for resident stream fish as well as migratory fish that rely on Great Lakes tributaries to spawn, while balancing the need to manage invasive species. The recent launch of this effort is sparking agencies and organizations to set shared goals, coordinate work at the most important locations, leverage investments and balance concerns for the control of aquatic invasive species to make the biggest impacts across the Great Lakes basin.



### **RESTORING HABITAT FOR NATIVE FISH**

In the Great Lakes, fish are the foundation of a \$4 billion commercial and recreational fishing industry and serve as important indicators for the health of this vast freshwater system.

Historic overfishing and the introduction of aquatic invasive species dramatically reduced the population of many native species, such as lake herring and ciscoes, and has destabilized the food web that supports the lakes' top predators, such as lake trout.

The Nature Conservancy has worked as part of the Great Lakes Fishery Commission's Native Planktivore Recovery Task Group to develop recommendations for native species restoration activities. Some key questions the group seeks to answer include: which native species have the best chances for restoration, under what conditions and in what locations?

The Conservancy is working on many fronts to help answer these questions. In partnership with experts from state, federal and tribal agencies we are developing recommendations for restoring populations of ciscoes in Lake Michigan. While these recommendations are scheduled for release in early 2017, some of them are already being used to inform management decisions.

We are also conducting collaborative research to identify remaining populations of lake herring and deepwater ciscoes suitable for future reintroduction efforts in other Great Lakes locations. Finally, we are helping to map and prioritize spawning and nursery habitat in Lakes Michigan and Huron to guide the location of future restoration efforts. By re-establishing lake herring and deepwater ciscoes, our Great Lakes fisheries will be more productive and reliable for years to come.

#### **GRAND TRAVERSE BAY REEF RESTORATION: ONE YEAR LATER**

In 2015, The Nature Conservancy, Michigan Department of Natural Resources and Central Michigan University restored a reef in Grand Traverse Bay near Elk Rapids with the goal of improving spawning habitat and increasing population numbers for three important native fish species: lake herring, lake whitefish and lake trout. The reef was selected because it is the only place in Lake Michigan where all three of these species are currently known to spawn. Preliminary monitoring data suggest that the restored habitat is a success, with documented spawning of lake trout. It will take at least five years of data to confirm that the native fish population changes can be definitively attributed to the reef restoration. Fortunately, project staff are committed to monitoring spawning populations to determine the long-term effects of this restoration effort.

# SCIENCE IN ACTION: CONTROLLING AQUATIC INVASIVE SPECIES

Aquatic invasive species (AIS) are one of the biggest threats to native fishes in the Great Lakes. A key part of restoring our fisheries must involve controlling invasive species. As part of the Grand Traverse Bay Reef Restoration collaboration, we have been working to develop techniques to control rusty crayfish and round goby. These invasive species have colonized spawning reefs where they consume large quantities of native fish eggs. A successful control strategy will substantially reduce their numbers on the reefs as native fish move in to spawn in the fall.





# PROMOTING SOIL HEALTH THROUGH AGRICULTURE

In Michigan, we have formed an innovative partnership between conservation organizations and the agriculture industry to incentivize action toward improved water quality and biodiversity in the Saginaw Bay watershed. We are doing this by focusing on three main projects:

#### A REGIONAL CONSERVATION PARTNERSHIP

The Regional Conservation Partnership Program (RCPP) provides funding to help farmers implement conservation practices such as cover crops on their fields, with the goal of impacting water quality. This partnership is also demonstrating how a broad suite of partners such as agribusiness and crop advisors can increase our collective ability to provide support to farmers and get more conservation practices on the ground, more efficiently. At the end of the program's first year, a total of 33 farmers have signed up and \$1.8 million in Farm Bill funding has been committed for the adoption of new conservation practices, which means over 18,787 acres of new conservation.

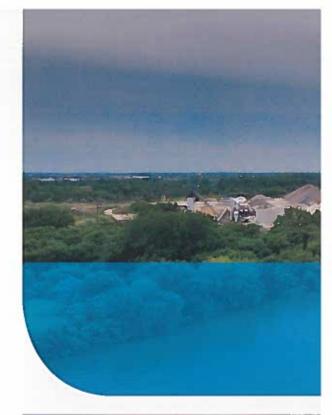
### ■ PAY-FOR-PERFORMANCE PROJECT IN SANILAC COUNTY

The Saginaw Bay Pay-for-Performance Project utilizes a non-traditional conservation funding option for landowners in the watershed. Through this project, participants implement new soil conservation practices (such as cover crops, filter strips or reduced tillage) that reduce sediment and nutrient runoff, and subsequently receive annual payments based on the environmental benefits achieved.

The Conservancy, in partnership with the Sanilac Conservation District, Delta Institute, Great Lakes Commission and MSU-Institute of Water Research, completed the first year of this five-year project with promising results: 721 acres are now enrolled. Applying conservation practices on those acres will result in 85 tons of sediment remaining on the land and out of nearby waterways.

# ■ GROUNDWATER RECHARGE IN HURON COUNTY

The Conservancy has worked with industry partners Keurig Green Mountain, Method and Coca-Cola to demonstrate how the pay-for-performance concept not only can reduce sediments and nutrient loads into water bodies, but can also be used to increase groundwater recharge. Implementing practices that benefit water recharge will replenish drinking water and irrigation sources and maintain stream flow for wildlife. This year, we contracted with seven landowners to implement no-till practices on just over 1,400 acres and drainage water management on 91 acres; resulting in 36.5 million gallons of groundwater recharged.







# SCIENCE IN ACTION: HARVESTING INVASIVE CATTAILS TO IMPROVE WATER

QUALITY AND WETLAND HABITAT The Shiawassee National Wildlife Refuge, Loyola University and The Nature Conservancy are testing the use of harvested cattails—an invasive, non-native cattail species pervasive in Great Lakes coastal wetlands—as biomass fertilizer on farm fields. The goal of the experiment is two-fold: to improve native plant diversity within the wetlands of the Refuge, providing better habitat for a host of native wetland animals; and to reduce nutrient inputs to streams and Great Lakes nearshore areas by reducing the amount of commercial fertilizer needed for crops. The Nature Conservancy is assisting with pre- and post-harvest monitoring to test the effectiveness at restoring wetland conditions within the Saginaw Bay watershed and to help answer questions related to cost effectiveness of harvested material as a fertilizer.



Michigan is known for its diverse agricultural production and thriving cities. But the use of our lands and waters for farming, industry and development, as well as our aging infrastructure, have caused decreases in water quality and loss of essential fish and wildlife habitat. The Conservancy is collaborating with partners across Michigan to address these issues. In the Saginaw Bay watershed we are working with members of the agricultural community to more effectively deploy conservation practices. In Detroit, we are working with stakeholders to reduce flooding and combined sewer overflows by incorporating green infrastructure into the city's stormwater management systems.

# FROM THE FARM TO THE BAY

In August, 63 members of Michigan's agricultural community boarded the tall ship Appledore for a tour of Saginaw Bay to learn more about this important freshwater resource and the conservation practices that can help protect it for people and nature. Algal blooms, which can be accelerated by the nutrients found in fertilizer runoff as well as from leaching septic systems and discharges from water treatment plants, have impacted water quality in the Bay. During the event, attendees learned about opportunities to get involved with the Saginaw Bay RCPP and other programs that help farmers implement conservation practices on their lands to protect streams and tributaries throughout the watershed.



# **URBAN CONSERVATION IN DETROIT**

Like many aging cities across North America, Detroit faces water infrastructure challenges. In many instances, the city's sewer system is combined to collect rainwater runoff, domestic sewage and industrial wastewater in the same pipes. When heavy rains occur, the system's capacity is overwhelmed, and combined sewer overflows (CSO's) occur in which untreated wastewater and sewage flood basements and overflow into rivers and, ultimately, the Great Lakes. Detroit's stormwater management system must be upgraded to protect water quality, human health and biodiversity. However, the costs of implementing traditional "gray" infrastructure improvements—such as new pipes and larger containment facilities—are daunting, with current estimates at \$1.2 billion.

As an alternative, The Nature Conservancy is participating in policy discussions to design city programs that incentivize green infrastructure, an engineered design that uses green space and natural plant material to absorb, retain and slow stormwater runoff. Green infrastructure reduces the amount of water entering the system for treatment, reduces CSO's and decreases surface flooding. This leads to improved water quality in adjacent rivers and lakes, as well as attractive green spaces that contribute to neighborhood revitalization by offering recreational areas and beautification opportunities.

In December, the Conservancy launched a partnership with Detroit's Eastern Market to implement green infrastructure solutions. The projects in this partnership will demonstrate green infrastructure concepts and help to quantify the stormwater captured onsite as a result.

# CONSERVATION IMPACT

# **RESILIENT FORESTS**

sustainable management of Michigan's forests

FOREST HEALTH ENHANCED VIA HARVEST ON

40 acres

USING KEY ECOLOGICAL ATTRIBUTES INVENTORY, FOREST HEALTH ASSESSED ON

3,000

acres

ADDITIONAL ACRES ENTERED INTO FSC CERTIFICATION —

120

acres

# **HEALTHY WATERS**

improved water quality, flow and management



# AQUATIC INVASIVE SPECIES

collected 75

ONE LITER EDNA WATER SAMPLES, INDENTIFYING 16.152.872 DNA FRAGMENTS

from 62

# NATIVE FISH

PRIORITY HABITAT

40

FISH SPECIES IN THE GREAT LAKES BASIN

# AMASSED & ANALYZED

**399,508** 

DATA POINTS TO PRIORITIZE WHERE WE NEED TO RECONNECT FISH HABITAT

# THRIVING COASTS

healthy coastal systems free from invasive species

29 new populations of invasive plant species identified\*\*

**22** OF THOSE WERE TREATED, FOR A TOTAL OF

75% of identified populations treated

ON EASTERN LAKE MICHIGAN

"IN PARTNERSHIP WITH THE MICHIGAN DUNE ALLIANCE



21
MILES OF TRAILS
RESTORED AND
MAINTAINED

6,826
TOTAL ACRES
OF EASEMENTS
MONITORED

# **AGRICULTURE**

18,787 acres
OF NEW CONSERVATION
IN SAGINAW BAY
WATERSHED

OF SEDIMENT RUNOFF REDUCED IN SANILAC COUNTY 36.5M gallons
OF GROUNDWATER
RECHARGED IN HURON
COUNTY



CONNECTING PEOPLE & NATURE

ARTICLES
PUBLISHED IN PEERREVIEWED JOURNALS\*\*

GUIDED FIELD
TRIPS HOSTED ON
CONSERVANCY PRESERVES

4,438

VOLUNTEER HOURS
CONTRIBUTED

\*\*FOR FULL LIST VISIT NATURE.ORG/MIPUBLICATIONS



ichigan's coastal ecosystems are some of the most biologically diverse systems in the state. They are also some of the most heavily used, supporting human uses like recreation, tourism, transportation and public access in both rural and urban areas, as well as supporting a number of unique and sometimes globally rare natural communities. In 2016, the Conservancy continued its work toward restoring and maintaining healthy, thriving coastal systems in multiple ways.

# **RESTORING OUR COASTAL DUNES**

In 2016, The Nature Conservancy completed the first year of a research and management project aimed at further improving our restoration techniques to combat baby's breath, an aggressive invasive species that quickly spreads and ecologically degrades Michigan's iconic dunes. With Great Lakes Restoration Initiative funding, the Conservancy has partnered with Grand Valley State University's Annis Water Resources Institute and the National Park Service at Sleeping Bear Dunes on a multi-year effort to better understand the spread and establishment of this high-threat invasive plant. Combining on-the-ground management with genetic analysis, this research will evaluate multiple control techniques employed at the Sleeping Bear Dune Plateau and provide further insight on how and where to apply those treatment efforts in future years to have greatest restoration impact.

The first field season of this project is now complete, with pre- and post-treatment data collected on the number and density of targeted plant populations. A second round of data will be collected next spring, followed by DNA analysis of those populations in the second year. This analysis will help land managers determine the likelihood that a given invasive population will infest new areas, either by seeds already in the soil or by wind-aided distribution of new seeds, and ultimately inform our restoration efforts to achieve the greatest ecological benefit.



MILLIONS OF BIRDS migrate through the Great Lakes every year, using wetlands, forests, shoreline and more than 32,000 islands as stopover sites where they can rest and refuel before the next leg of their journey. To highlight the value that this phenomenon provides for the region, the Conservancy was proud to be a sponsor of the Biggest Week in American Birding, hosted by Black Swamp Bird Observatory in northwest Ohio. In conjunction with the event, we launched an interactive web-based map (nature.org/birdmap) to highlight Conservancy preserves where these migratory birds can be seen.

# COMMUNITY HELPING TO CONSERVE NATURE

This summer, local community members in Onekema, Michigan joined forces with The Nature Conservancy to conserve Portage Point Dunes, a natural area on the shores of Lake Michigan known and loved by those who live nearby as well as the many visitors to this beautiful coastal community. This was accomplished through the generous donation of eighty acres of forested dune habitat adjacent to our Portage Point Woods Preserve. This donation tripled the size of the existing Conservancy property, creating a unique area supporting both wildlife habitat and recreational activity. "Conservation is as much about community and relationships as it is about protecting resources," noted Buck Drew, one of the donors engaged in the project.

# PROTECTION & RESTORATION

GRAND RIVER FEN PRESERVE This year, the Conservancy purchased property that connected the north and south portions of the Grand River Fen Preserve, which was a key step in establishing a corridor for plants and wildlife to move between natural areas such as the Grand River Fen preserve and nearby Skiff Lake. This 153-acre acquisition brings the total area protected as a nature preserve to 607 acres. It also provides the opportunity to develop trails and a parking area for visitors. The Nature Conservancy acquired the land through the generous support of Dr. John Woollam.

### **CHARITY ISLAND**

The Conservancy transferred 1.28 acres on Charity Island, located in Saginaw Bay, to the U.S. Fish and Wildlife Service (USFWS), making this important property part of the USFWS' Michigan Islands National Wildlife Refuge and protecting approximately 140 feet of Lake Huron shoreline, which supports endangered Pitcher's thistle. This transfer represents the last of the lands the Conservancy owned on the island, completing a project initiated nearly 15 years ago.

#### **DEER LAKE**

For several years, the Conservancy held a conservation easement on 244 acres of land near Deer Lake and the southern shore of Lake Superior in the Upper Peninsula. The easement ensured the habitat was properly managed and protected for the rare plants, migratory birds and wildlife that rely on it for survival. Recently, the landowners generously donated 234 acres of the property to the Conservancy, retaining 10 acres that will remain in the conservation easement. This important donation, which is in close proximity to the Hiawatha National Forest, protects a pristine Great Lakes hemlock and beech hardwood forest that includes areas with old-growth characteristics.

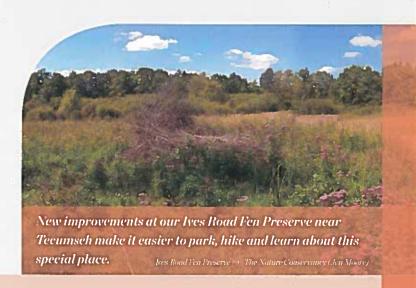
### MICHIGAMME HIGHLANDS

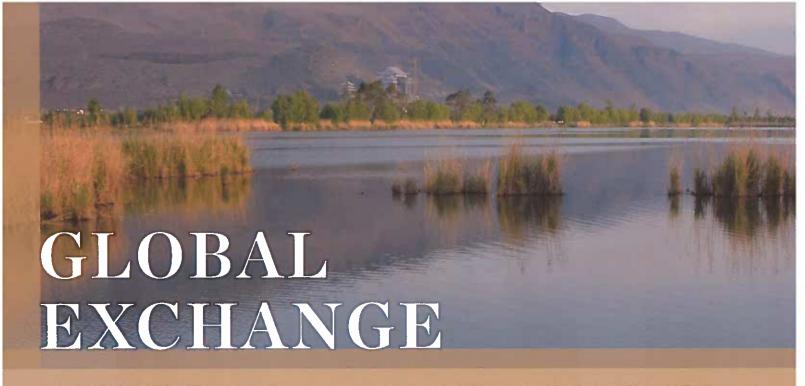
Along the northernmost tip of the Upper Peninsula, the Michigamme Highlands are home to some of Michigan's most scenic wild places. The Conservancy recently transferred 776 acres in this area to the Houghton-Keweenaw Conservation District. Acquired in 2007 through a USFWS grant, the property is located adjacent to our Bete Grise Preserve, the highest quality dune-and-swale wetland system remaining in the Upper Great Lakes. This transfer demonstrates a key component of our conservation strategy, which is to help local land trusts identify and

protect ecologically important areas for both people and nature.

## **IVES ROAD FEN PRESERVE RESTORATION**

In 2016, after 10 years of intensive restoration work by staff and dedicated volunteers led by long-time volunteer Chuck Pearson, we reached an important milestone at the Ives Road Fen Preserve near Tecumseh, Michigan. We have removed virtually all of the invasive glossy buck thorn populations, shifting our work there to maintenance mode, and a significant portion of the 700-acre preserve was opened to the public for the first time. To celebrate, in May the Conservancy hosted a guided hike through a newly-established trail system at the southern end of the preserve. More than 40 people were able to experience the floodplain of the River Raisin, a nearby restored gravel quarry that now provides habitat for the Blanchard's cricket frog, and propagation fields where native plant seeds are grown and harvested to repopulate native prairie habitat at Ives and across southeast Michigan. To enhance visitors' experiences at the preserve, a new parking lot is available near the trailhead and educational signs have been installed along the trail system.





**DID YOU KNOW** that The Nature Conservancy is a global conservation organization working in all 50 states and in 70 countries around the world? Several Michigan staff members recently put their conservation expertise to work, sharing knowledge internationally.



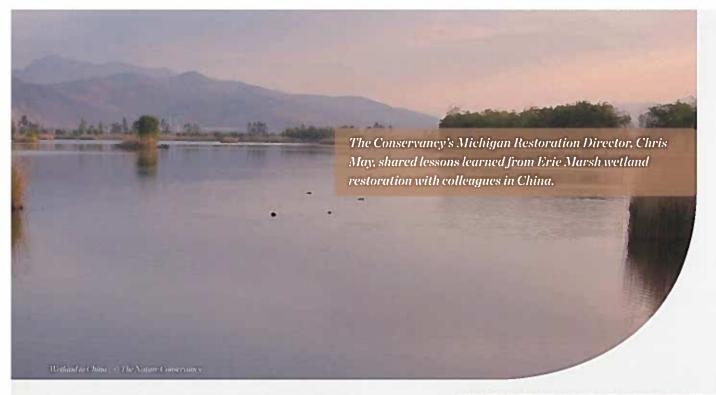
## **AFRICAN GREAT LAKES**

Conservancy staff and trustees traveled to Africa in June with the purpose of promoting a Great Lakes to Great Lakes Initiative. Africa's Great Lakes are a series of nine lakes that stretch across six countries and are some of the largest and most ecologically diverse freshwater systems on the planet. Today, they are facing many of the same threats as the North American Great Lakes, including habitat loss, degraded water quality, poor forest management and conversion of lands in the watershed to agricultural production, and introductions of aquatic invasive species. By working together and sharing conservation approaches through exchanges like this, the Conservancy and conservation partners in Africa can leverage our combined expertise to protect some of the world's most important freshwater resources.

### **WETLAND RESTORATION IN CHINA**

Chris May, our Director of Restoration, spent six weeks in China in 2016 sharing conservation knowledge with staff of the Conservancy's China Program. The focus of the exchange was a wetland in the Yunnan Province facing challenges similar to those at our Erie Marsh Preserve: lack of water management and degraded water quality. Through a fellowship designed to

foster the sharing of staff knowledge, time and experience, Chris was able to share his restoration expertise and ideas for repairing the wetland's degraded shoreline. He also helped the China Program develop wetland restoration and management trainings that can be shared with other organizations, and learned new ways to engage stakeholders on conservation efforts in Michigan.



# PRESCRIBED FIRE TRAINING EXCHANGE

In September, Michigan Land Steward Rodolfo Zuniga-Villegas traveled to New Mexico to lead the Conservancy's Fire Learning Networks' sixth annual Spanish-language fire training, or, Intercambio y Entrenamiento en Quemas Prescritas en Español. The goal of this training is to integrate the international experience and knowledge of fire practitioners and students from Spanish-speaking countries with their local counterparts, sharing approaches and experiences about fire and conservation across different cultural and natural systems.

For the sixth year in a row, Rodolfo served as the "Incident Commander", leading participants on several prescribed burns during the training, as well as teaching topics such as fire behavior, control and ignitions operations and burn plans and prescription windows. Attend-

ees also participated in burnout operations for a wildfire underway in Santa Fe National Forest.

Valuable information was exchanged through presentations made by the participants, where they shared the state of prescribed fire in their own countries.







Rodolfo Zuniga-Villegas, a longtime land steward in Michigan for The Nature Conservancy, leads others throughout the Conservancy in fire safety using his native Spanish language and experiences.

\*\*Proceedings of The Nature Conservancy (Bodolfo Zuniga Villegas)



# **BLUE ACCOUNTING**

Throughout 2016, the Conservancy and the Great Lakes Commission steadily advanced in their joint Blue Accounting Program. Blue Accounting is specifically designed to support basin-wide collaborative adaptive management. It provides services to three sectors of the Great Lakes community: to leaders and their staff who make major resource allocation decisions on Great Lakes management, to collaboratives focused on establishing and implementing joint strategies addressing key Great Lakes issues, and to those that collect and provide relevant data. Blue Accounting also works with these sectors to deliver relevant, reliable and timely information to Great Lakes leaders to help them assess how investments and actions are improving the ecological and socioeconomic condition of the Great Lakes region.

Blue Accounting is currently focusing on pilot projects for four key management issues:

- Aquatic Invasive Species helping resource management agencies prevent new species from entering the Great Lakes while managing those that are already here;
- Connectivity providing decision makers the information they need to assess the pros and cons of removing barriers that fragment our streams and rivers;
- JOURNAL OF THE WORK OF THE WOR

## PEER IMPACT

In 2016, Nature
Conservancy scientists
provided significant
contributions to the
conservation community.
Staff gave 41 presentations
to external organizations,
and published 16 articles
in peer-reviewed journals,
including five articles in a
special edition of Journal
of Great Lakes Research
devoted to agriculture.

- ErieStat tracking progress toward meeting the 40% phosphorus reduction goals for Lake Erie;
- Source Water Quality helping protect and improve the quality of source water for public use.



# 21ST CENTURY INFRASTRUCTURE COMMISSION

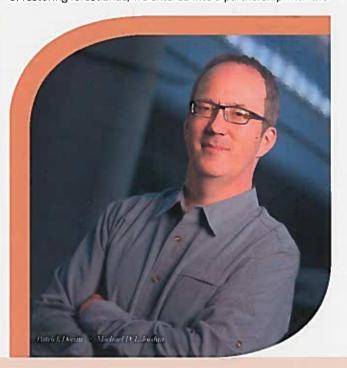
State Director Helen Taylor was appointed by Governor Snyder to serve on the 21st Century Infrastructure Commission, charged with identifying strategies to modernize the state's transportation, water and sewer, energy and communications infrastructure over the next 30-50 years. Throughout 2016, the commission reviewed research and existing infrastructure initiatives from around the world; explored the merits and limitations of various tools, management techniques and funding approaches; and interviewed dozens of infrastructure experts. The Commission came together to produce a set of key recommendations that prioritize the health and safety of Michigan's residents. These recommendations also provide for better coordination in the planning, construction and maintenance of all infrastructure types-including nature-based and green infrastructure-as well as making investments that will lead to improved public and environmental health.



# THE YEAR IN REVIEW

This June, I traveled with other Conservancy staff, members of our board and generous supporters to Tanzania where we visited Lake Tanganyika, one of Africa's Great Lakes. While I was there, I couldn't help but be struck by the similarities of the work the Conservancy does all around the world and the need for collaboration across organizations and across borders. The issues impacting Africa's Great Lakes, and many other freshwater systems around the world, are very similar to what we face here at home in Michigan: conservation of biodiversity in our forests, along our coastlines and in our freshwater systems, as well as ensuring our farms, our cities and our freshwater resources are managed to benefit both people and nature. Conserving nature both for its own sake and for the role that nature plays in supporting people are priorities for The Nature Conservancy.

This global context provides added inspiration to our work back home. Here in Michigan, our conservation efforts have resulted in several "Big Wins" over the past year. For example, as part of restoring forestlands, we entered into a partnership with the



Ottawa National Forest that will allow us to complete much-needed restoration on those forest lands (page 3). We helped launch the Great Lakes Aquatic Connectivity Collaborative, which will work to improve fish habitat and spawning sites across the Great Lakes basin (page 5). And, we enrolled almost 19,000 acres of farmland into the Regional Conservation Partnership Program (RCPP), ensuring that these lands are managed in a way that benefits Saginaw Bay and the Great Lakes (page 6).

However, as proud as I am of these successes, we know that they would not be possible without our many valued partners and supporters across the state and the Great Lakes basin. To all of you, we say thank you. And, we are looking forward to another year of collaboration where we have our eye on "Big Wins" for 2017, including:

- Continued partnership with the agriculture sector to develop innovative methods to reduce the industry's impact on water quality, such as implementing outcomebased drain assessments
- Establishing basin-wide goals for metrics related to the health of migratory fish populations
- Launching a green infrastructure pilot project in Detroit, in partnership with the Eastern Market Corporation, to demonstrate the value of nature in reducing stormwater flooding
- Launching a Great Lakes-to-Great Lakes Initiative with the Conservancy's Africa Program, helping to further our global exchange of knowledge

With our history of strong science and on-the-ground experiences, our invaluable partnerships and our dedication to conservation for both people and nature, I'm looking forward to seeing what we can accomplish in the year to come.

PATRICK DORAN, Ph.D ASSOCIATE STATE DIRECTOR

# STATE DIRECTOR

Helen Taylor

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Rich Bowman Director of Government Relations

Dr. Scott Sowa Director of Science

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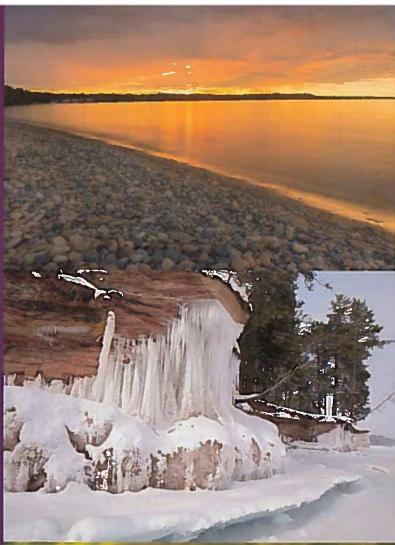
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